

KCC 4809 (K-C 16,733)
PATENT

REMARKS

This Amendment is in response to the Office Action mailed October 16, 2003. Claims 1-11 and 16-21 are cancelled in confirmation of the prior election of invention. This paper adds claims 23-31. Accordingly, claims 12-15 and 22-31 are pending upon entry of this amendment.

Response to Rejection of Claim 12 under 35 U.S.C. § 102

The present invention is particularly directed to the provision of to a continuous length of absorbent material for uninterrupted sequential infeed to a processing machine. This material is typically in a large roll that is unwound in manufacturing an absorbent article. Personal care absorbent articles such as disposable diapers, training pants, other infant care products, other child care products, feminine napkins, panty liners, interlabial pads, other feminine care products, incontinence articles, and other adult care products are typically manufactured using high-speed processing machines which convert a stabilized web or ribbon of a fibrous absorbent material into an article. To prevent interruption of the processing machine when the material in one roll is exhausted, a trailing end of each coil is spliced to a leading end of the next coil. The resulting interconnected web has essentially a continuous length and the splice has a sufficient tensile strength so that it may be provided to the machine and processed without breaking at the splice.

One drawback to conventional splicing techniques is that the splice is not fluid permeable and therefore unusable in an article. In the past, fibrous absorbent materials have been joined by an adhesive or, since they do not have smooth surfaces which readily hold an adhesive, by an adhesive tape. Adhesives and tape are substantially impermeable to fluid. As a result, it is necessary to cull all spliced regions of the absorbent material, or to cull all articles that may incorporate a portion of a spliced region, in order to remove all adhesive or tape.

KCC 4809 (K-C 16,733)
PATENT

The present invention comprises a continuous length of absorbent material for uninterrupted sequential infeed to a processing machine. Specifically, claim 12 is directed to a continuous length of absorbent material comprising, inter alia:

a first portion of absorbent material having a trailing end;

a second portion of absorbent material having a leading end adjacent to and aligned with the trailing end of the first portion of absorbent material thereby defining an aligned junction of the first and second portions having a length extending generally transverse of the first and second portions;

the first portion of absorbent material and the second portion of absorbent material each having a length sufficient to form a plurality of absorbent articles; and

a piece of splicing material attached to both of said trailing end of said first portion and to said leading end of said second portion of absorbent material such that the splicing material extends continuously over a majority of the length of the aligned junction, said splicing material including fibers having polyolefin content and having a fluid permeability at least about 25% as great as a fluid permeability of said first portion of absorbent material and at least about 25% as great as said second portion of absorbent material.

Claim 12 is patentable over the cited art, in particular Lassen et al., U.S. Patent No. 5,569,230, in that the cited art does not show or suggest a continuous length of absorbent material for uninterrupted sequential infeed to a processing machine comprising a first portion having a trailing end, a second portion having a leading end adjacent to and aligned with the trailing end of the first portion of absorbent material (where each of the first and second portions has a length to make plural absorbent articles) and a piece of splicing material attached to both of said trailing end of said first portion and as required by claim 12.

KCC 4809 (K-C 16,733)
PATENT

Lassen et al. have nothing to do with splicing or otherwise connecting two pieces of absorbent material together to form a continuous length. Lassen et al. disclose an absorbent (i.e., a feminine napkin) that is flexible about its longitudinal axis. The absorbent core (18) has a central, flexure axis (24) dividing the core into a first member (26) and a second member (28). The length of each member (26, 28) is equal to the length of one absorbent article (i.e., the feminine napkin). Typically, there is a channel or slit along the length that forms a hinge. In one embodiment (Fig. 9) a low density absorbent is placed along the long axis of the article between the first and second members. There is no disclosure that the low density absorbent splices or connects the two members (26, 28) together. The purpose of the low density material is to draw liquid from the flexure axis to the members (26, 28) located more to the side of the article. (See Lassen et al., Fig. 9, col. 9, lines 37-43). The low density material does not prevent the article from flexing about its long axis. The low density material is nowhere identified as splicing or mechanically joining the members together and therefore is not splicing material.

The teachings of Lassen et al. clearly fail to disclose or suggest a continuous length of absorbent material for uninterrupted sequential infeed to a processing machine. Lassen et al. solely contemplates the construction of a single absorbent article. Nowhere does Lassen et al. teach or suggest that the low density absorbent region (48) would be suitable for splicing together the ends of separate portions of absorbent material so that the material can be feed without interruption to a processing machine as required by claim 12. Thus, the low density region 48 is not "splicing material" as required by the claim. Applicants request citation of the specific section of Lassen et al., which shows that the low density material performs a splicing function. In that regard, mere contact with the members (26, 28) does not teach a splicing connection.

KCC 4809 (K-C 16,733)
PATENT

Additionally, amended claim 12 requires that each of the first and second portions of the absorbent material have a length sufficient to make plural absorbent articles. The claim is directed to the material used to make an absorbent article, not to an absorbent article. Lassen et al. show members (26, 28) that each have a length capable of forming one absorbent article. Lassen et al. do not disclose or suggest absorbent material having the claimed splice, in which each of two portions of the absorbent material connected by the splice have lengths sufficient to form plural absorbent articles. Accordingly, claim 12 is patentable for this additional reason.

Claims 13-15 and 22, as well as new claims 23-31, depending directly or indirectly from claim 12, are submitted as patentable over the cited reference for the same reasons. In addition, claims 14 and 23 require the splicing material to be thermally bonded. Lassen et al. lack any disclosure of suggestion of such a connection. New Claim 25 further specifies that the trailing end of the first portion and the leading end of the second portion are "arranged squarely end-to-end". The low density material of Lassen et al. separates the members (26, 28) so they cannot be arranged squarely end-to-end. Claim 26 further requires an overlap of the first and second portions. Lassen et al. also fail to show or suggest this arrangement.

Claim 27 further specifies that the splicing material has opposite major surfaces and that the splicing material is attached to at least one of the major surfaces of both first and second portions. The low density material (48) of Lassen et al. appears to contact only thin, minor surfaces of the members (26, 28). It is difficult to obtain a sufficiently good connection for splicing when only minor surfaces are contacted. Claims 28-31 depend directly or indirectly from claim 27 and are patentable for the same additional reasons as claim 27. Moreover, these claims specify additional arrangements of the splicing material relative to the major surfaces of the first and

KCC 4809 (K-C 16,733)
PATENT

second portions, which are not shown or suggested by Lassen et al.

Conclusion

In view of the foregoing, reconsideration and prompt allowance of claims 12-15 and 22-31 is respectively requested.

Respectfully submitted,



Kurt F. James, Reg. No. 33,716
SENNIGER, POWERS, LEAVITT & ROEDEL
One Metropolitan Square, 16th Floor
St. Louis, Missouri 63102
(314) 231-5400

KFJ/dss